Department of Energy
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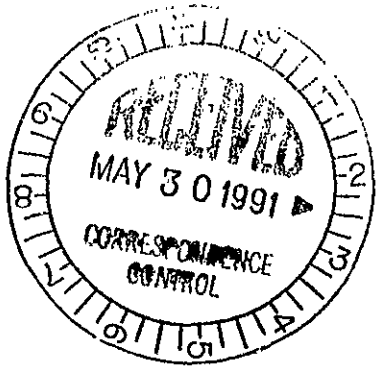


91-ERB-105

Mr. Paul T. Day
Hanford Project Manager
U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. Timothy L. Nord
Hanford Project Manager
State of Washington
Department of Ecology
Mail Stop PV-11
Olympia, Washington 98504-8711

Dear Messrs. Day and Nord:

TRANSMITTAL OF 316-5 PROCESS TRENCHES EXPEDITED RESPONSE ACTION (ERA) PROPOSAL FOR PUBLIC COMMENT

Please find enclosed the revised 316-5 ERA Proposal. The U.S. Environmental Protection Agency (EPA), State of Washington Department of Ecology, and U.S. Department of Energy (DOE-HQ and DOE-RL) comments have been incorporated into the document in accordance with the comment resolution summary, also enclosed. Comment responses were agreed-to in a meeting conducted on May 7, 1991, by Unit Managers of the respective agencies.

The EPA, as the lead regulatory agency, is to make the document available for public comment.

Please contact Mr. R. K. Stewart on (509) 376-6192 with any questions.

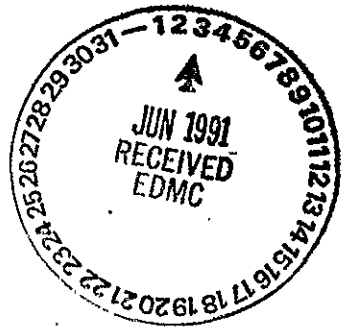
Sincerely,

Steven H. Wisness
Hanford Project Manager

ERD:RKS

Enclosures:
1. EH-221 Comments on Draft A
2. Revised 316-5 ERA Proposal

cc: See attached



cc w/encl:
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Responses to EH-221 Comments on Draft A
Expedited Response Action Proposal for
316-5 Process Trenches
March 1991

General Comments

Need for documentation of actual or potential threat (risks) posed by the 316-5 Process Trenches - The Draft Proposal does not adequately document actual or potential threats to public health or the environment posed by the 316-5 Process Trenches. This documentation is important to 1) justify the need for the ERA and 2) demonstrate that the ERA is addressing the principal near-term threats posed by the site. A section is needed in the Draft proposal that qualitatively (and quantitatively, if possible) assesses site risks. This assessment should at a minimum describe: principal contaminants of concern (a subset of the contaminants described in Section 2.5) based on toxicity, concentration, and mobility; principal exposure pathways that are of concern and likely receptors. This discussion need not be extensive (a few paragraphs may suffice). Useful guidance is found in EPA's Superfund Removal Procedures Action Memorandum Guidance, December 1990 (pages 12-16); factors to be used in determining the existence of a threat are found in section 300.415(b) of the NCP.

This section should also include an assessment of the existing sediment contaminant levels, given that the most recent analytical data presented in the report were developed in 1987, hazardous waste disposal to the trenches ceased in February 1985, disposal of the most significant quantities of radioactive waste ceased in 1987, and the trenches continue to be flushed with (receive) relatively clean wastewater on a periodic basis. The section should also assess whether the greatest concentrations of contaminants of concern are still likely to be found above the 2-foot depth (the depth proposed for excavation) or whether the greatest concentrations are now likely to be found below this depth due to migration. If significant migration has not occurred, the section should state why the site is still a near-term threat to groundwater and an ERA is necessary.

In summary, the Draft Proposal does not contain adequate documentation that a response action is necessary nor whether the proposed action is adequate to control site risks.

Response: The text does not require revision.

Lack of consideration of ceasing wastewater discharge to the Process Trenches as a response alternative - The Proposal does not evaluate ceasing wastewater discharge to the Process Trenches as an alternative that may achieve the objective of the ERA. Good reasons may exist for not evaluating this alternative but they are not stated in the proposal. This alternative appears to have obvious potential advantages, such as avoiding airborne risks associated with excavation, and avoiding continued flushing of potential contaminants in the deep sediments and groundwater to the Columbia River. As

a result, consideration should be given to formally evaluating this alternative.

Response: The text was revised to address the comment.

Specific Comments

1. Page 1, 1st paragraph, 3rd sentence - The date cited for the National Contingency Plan (NCP) should be March 8, 1990, which is the date of publication of the new Final NCP in the Federal Register, rather than 1985, which is the date of publication of the old NCP.

   Response: Text will be revised to address the comment.

2. Page 1, 1st paragraph, 6th sentence - The text should state that upon timely request by the public, the public comment period may be extended by a minimum of 15 days by the lead agency, consistent with Section 300.410(m)(4) of the NCP.

   Response: The text did not require revision to address the comment.

3. Page 1, Section 1.2 - The objective of the ERA should be stated in terms of the principal threats to be addressed by the ERA rather than the specific cleanup action proposed, to avoid the appearance of a non-objective analysis of other alternatives. I suggest the first sentence be reworded to: "The objective of the ERA is to reduce the potential for migration of contaminants from sediments in the inactive trenches to the soil column, groundwater, and Columbia River." A statement of the ultimate objective, e.g. reduction of risk to biota or public health, should also be provided here.

   Response: The text was revised to address the comment.

4. Page 2, Section 2.1, 1st sentence - It is not clear why the Process Trenches are described as an "active" RCRA TSD unit since elsewhere in this document it is stated that the unit has not received hazardous waste since 1985.

   Response: Text did not reguire revision.

5. Page 10, 2nd complete paragraph, 2nd sentence - Regulatory criteria and requirements currently applicable for determining whether a solid waste is a RCRA toxicity characteristic hazardous waste are found in the March 29, 1990 Toxicity Characteristics Revisions, Final Rule (Federal Register vol. 55 No. 61, pages 11798-11877). New Toxicity Characteristics and the Toxicity Characteristic Leaching Procedure (TCLP) were promulgated as part of this rule which replaced the Extraction Procedure (EP) toxicity test. This paragraph should therefore also assess, by engineering judgement or

analysis of actual data, whether the surface soils are toxicity characteristic hazardous waste under the new regulations. This assessment is necessary for the determination of action-specific ARARs for cleanup alternatives evaluated in the EE/CA.

Response: The text was revised to address the comment.

6. Page 10, last paragraph - This paragraph should reference Section 300.415(1) of the NCP which states that removal actions" ....shall, to the extent practicable considering the exigencies of the situation, attain applicable or relevant and appropriate requirements..". Factors for determining whether compliance with ARARS is practicable are discussed in Section 300.415(1) of the NCP and the NCP preamble (FR, vol. 55, No. 56, pages 8694 - 8696). The determination of the "appropriateness" of ARARs for an ERA should be consistent with the NCP and the NCP preamble. I suggest that the last sentence of this page be replaced with: "ARARs will be attained by the ERA to the extent practicable considering the exigencies of the situation, consistent with Section 300.415(1) of the NCP."

Response: Text was revised to address the comment.

7. Page 14, Section 3.2 - The derived concentration guidelines (DCG) are not potential ARARs since they were established through DOE order rather than through promulgation as regulation. DCGs may be applied as to-be-considered (TBC) criteria, however, for the stated purpose. I recommend rewording the last sentence on this page to: "The DCGs are not potential ARARs because they are not legally promulgated standards; however, the DCGs are considered to-be-considered (TBC) criteria under CERCLA and will be used during implementation of the ERA."

Response: Text was revised to address the comment.

8. Page 15, Section 3.3 - See comment 7.

Response: See response to comment 7.

9. Page 16, Section 3.4 - This Section provides an unclear, and unnecessary, rational as to why compliance with state soil clean-up standards is not practicable. Specifically, it is not clear what limitations in performing removal" exist that would adversely affect attainment of specified clean-up levels nor is it clear why continued use of the trenches for effluent discharge render compliance with specified clean-up levels not practicable. I suggest these two paragraphs be replaced by the following language, which avoids the issue of whether attainment of specific cleanup levels is practicable: "There are no specific federal cleanup standards or chemical-specific ARARs for compounds in soils (hazardous or radionuclide). Soil cleanup standards have been recently established, however, pursuant to the State Model Toxics Control Act (Clean-up

Regulation Chapter 173-340-430 WAC). This regulation requires attainment of cleanup standards for final cleanup, but not for interim actions conducted prior to selection and completion of final cleanup (WAC 173-340-430). The state soil cleanup standards are, therefore, not considered potential ARARs for this ERA (an interim action), but will be reviewed later as potential ARARs for final cleanup."

Response: Text was revised to address the comment.

10. Page 16, last paragraph, 3rd sentence - This sentence should reference the final NCP (FR vol. 55, No. 46, March 8, 1990, page 8843) rather than the proposed NCP.

    Response: Text was revised to address the comment.

11. Page 17, 3rd paragraph - This paragraph implies that protectiveness may be compromised for cost reasons. I recommend adding the following language to the last sentence:"..provided the less costly alternative is adequately protective of public health and the environment."

    Response: Text was revised to address the comment.

12. Page 19, Section 4.3.1 - I recommend addition of the following sentence after the second sentence: "Selection of a specific type of containment technology will depend on the nature of the contaminated materials to be contained, the ability of the technology to control principal exposure pathways, and action specific ARARs".

    Response: Text was revised to address the comment.

13. Page 19, Section 4.3.1.1, 4th sentence - This sentence is inappropriate and should be deleted.

    Response: Text was revised to address the comment.

14. Page 19, Section 4.3.1.2, last sentence - The statement "The ERA does not intend to remove the contaminants from the immediate area of the trenches.." does not provide adequate justification for elimination of the Land Encapsulation technology. A justification based on technical, regulatory, cost, or other relevant factors need to be provided.

    Response: The text was revised to address the comment.

15. Page 19, Section 4.3.1.3 - Stabilization and solidification is considered a form of treatment by EPA and should therefore be discussed in Section 4.3.3 rather than in this section. The statement "The presence of

hazardous chemicals may interfere with stabilization" is inappropriate without a supporting analysis addressing the specific hazardous chemicals at the site. Stabilization is a widely used remedial technology; the presence of high concentrations of organics (which do not appear to exist in the Process Trenches) is however, one important criterion used by EPA for determining that stabilization is not appropriate in particular situations.

Response: The text was not revised.

16. Page 20, Section 4.3.2 and remainder of document - The term "stabilization" implies treatment through addition of physical or chemical stabilizing agents to a contaminated material. I recommend replacing the word "stabilization" with the word containment", to avoid confusion, unless actual treatment is intended by use of the term.

Response: The text was not revised.

17. Page 20, Section 4.3.3.2.1 - This section should state the reasons for not considering Soil Washing further in the analysis.

Response: The text was revised to address the comment.

18. Page 21, last paragraph, 1st four sentences - The analyses presented for determining the RCRA status of the sediments and regulatory requirements for managing the sediments are inconsistent with EPA's approach for determining ARARs (see EPA's CERCLA Compliance with other Laws Manual: Draft Guidance (August 1988), RCRA ARARs: Focus on Closure Requirements (October 1989), and NCP preamble pages 8758 - 8760). Specifically, the sediments are RCRA wastes only if they are RCRA characteristic waste or a RCRA listed waste. RCRA is applicable and the sediments must be managed as RCRA waste if they are RCRA waste or they contain listed RCRA wastes (generally defined as material containing constituents from a RCRA listed waste above health bases levels). RCRA is relevant and appropriate and the sediments must be managed as RCRA wastes if the sediments are sufficiently similar in composition to RCRA wastes under the circumstances of the release from the site. ARARs for consolidation of the sediments should be analyzed consistent with the documents cited above.

Response: The text was revised to address the comment.

19. Page 22, Table 8 - This table and associated analysis should be presenting in Section 2.4 with other analytical data.

Response: The text was revised to address the comment.

20 Page 24, 1st full paragraph - It is not clear why monitoring with field instruments to verify the level of contaminant removal is necessary since cleanup levels are not specified in the proposed action.

Response: The text was revised to address the comment.

21. Page 24, 1st full paragraph - The containment system described in this paragraph may not satisfy action-specific RCRA ARARs if the sediments are determined to be, or to contain, RCRA wastes, or RCRA is otherwise determined to be relevant and appropriate. An ARAR waiver may be obtained, and justified based on the interim nature of the action, to allow use a non-RCRA compliant containment system, and to avoid treatment requirements if the movement is outside the area of contamination.

Response: The text was revised to address the comment.

22. Page 26, 1st paragraph, 2nd sentence - See comment 1. Also, promulgated state requirements may be ARARs, as well as federal requirements.

Response: Text was revised to address the comment.

23. Page 37, 7th reference - See Comment 1.

Response: The text was revised to address the comment.

Responses to Review Comments for
Draft Expedited Response Action Proposal
for the 316-5 Process Trenches

Section 3.4 states that the ERA objective is not based on attaining a specific numeric cleanup level and that isolation is a good waste management practice. It is unclear how you are to determine whether you have achieved waste isolation if some numeric determination is not made. The logic in removing a predetermined amount of soil, when the extent of contamination is not well defined, is weak. This scenario does not necessarily achieve waste isolation.

Response: The text was revised to address the comment.

The cost comparisons in Sections 6.2.3.1, 6.2.3.2, and 6.2.3.3 are biased, in that the removal of the waste to a Central Waste Complex includes the cost of analysis and disposal of the soil (as would be required by the CWC's RCRA permit) but the ultimate disposal costs are not considered in the consolidation of the materials at the end of the trenches or at the process pond. Disposal or treatment are costs that will ultimately have to be borne no matter which alternative is selected. It, therefore, seems to imply that the these ultimate costs have not been considered or that the screening was intentionally biased away from CWC disposal.

Response: The text was not revised.

Section 6.2.3.1

1. Bullet 2- the units should be cubic meters not cm.

Response: Text was revised to address the comment.

2. The cost item labeled Waste Characterization appears to also include the cost of waste disposal and should therefore be relabeled.

Response: The text was revised to address the comment.

The management plan defines (to some extent) the tasks within this project but other than by reference it provides no insite into the management structure and controls for the project.

Response: The text was not revised.

RESOLUTION OF EPA/ECOLOGY REVIEW COMMENTS FOR THE EXPEDITED RESPONSE ACTION FOR THE 316-5 PROCESS TRENCHES

1.0 Section 1.0, Page 1, first paragraph

Deficiency: The introduction fails to identify state laws that will be addressed while performing the Expedite Response Action.

Recommendation: Revise the text to state that this ERA will be conducted in accordance with Chapter 70.105D RCW entitled Model Toxics Control Act (MTCA)

Response: The text was revised to address the comment.

2.0 Section 2.1

Comment: A description of the previous use or purpose of the north lobe should be provided in this section or in Section 2.4 since the excavated material will be placed there for interim stabilization.

Response: The text was revised to address the comment.

3.0 Section 2.2, Page 2

Deficiency: The section should deal with present operating conditions only. Material related to past operations (e.g., Before 1985...") can be misleading or confusing in this section. Also, this section does not adequately describe the types of waste streams discharging to the process trenches.

Recommendation: Material related to past operations should be moved to the section entitled Nature and Extent of Contamination, Section 2.4. Also, revise the text to include a complete list of the waste streams discharging to the process trenches.

Response: The text was revised to address the comment.

4.0 Section 2.2, Page 7, first paragraph

Deficiency: The text states "The effluent currently discharging to the trenches is not designated as a dangerous waste according to procedures specified in the Washington Administrative Code (WAC) 173-303."

Recommendation: Revise the text to include the sampling data to support this statement or provide a reference to the sample results.

Response: The text was revised to address the comment.

5.0 Section 2.3, Page 7

Deficiency: This section does not address milestone M-17-06 of the Tri-Party Agreement.

Recommendation: This section may be better written as follows:

"Milestone M-17-06 of the Hanford Federal Facility Agreement and Consent Order requires that discharges to the 300 Area Process Trenches will cease in December 1991. DOE has submitted a change request form to EPA and Ecology requesting an extension on that date to December 1994 at which time the 300 Area waste water treatment plant would be operational. EPA and Ecology denied the change request on April 8, 1991 and have agreed, at the writing of this proposal, to examine a revised proposal and discuss the issue further.

Current projects for the trenches include obtaining a substantial reduction of flow from cooling water sources and the construction of an effluent inspection and treatment facility that would eliminate the need for discharges to the process trenches."

Response: The text was revised to address the comment.

6.0 Section 2.4, Page 7

Comment: The extent of contamination is not addressed in this section therefore the title of this section should not elude to this. Minimal information was given on extent of contamination in the report by Zimmerman and Kossik. Complete characterization of the site will be done in the RI/FS process.

Response: The text was revised to address the comment.

7.0 Section 2.5.2, Page 10, third paragraph

Deficiency: The text states that "The data indicate that the surface soils may not exceed criteria for dangerous waste designation." The EP-Tox test for dangerous waste is no longer used by the EPA. In September 1990, EPA adopted the use of the TCLP test and all waste designations must be subjected to this test to confirm the presence of hazardous waste.

Recommendation: The text should be revised to note that the sediments are currently undesignated and, before the removal action commences, representative samples from each trench will be taken and subjected to TCLP analysis. It is recommended that a minimum of two separate sampling locations per trench be designated and that sampling proceed to the estimated excavation depth. It should be noted that this sampling would provide valuable information to the 300-FF-1 investigation since

no sampling is scheduled in the lobe portion of the process trenches as a part of this work plan.

Response: The text was revised to address the comment.

8.0 Section 3.0, Page 10

Comment: The opening paragraph of this section is confusing and may be better written as follows:

"The basic description of applicable or relevant and appropriate requirements (ARARs) is provided in ... Order (Ecology et al. 1989). It is noted in this section that for interim actions, ARARs will be applied, as appropriate, since during the final RI/FS or RFI/CMS process for the operable unit ARAR cleanup standards will be in effect."

Response: The text was revised to address the comment.

9.0 Table 2, Page 11

Comment: Cadmium is noted at a peak concentration of 6,440 mg.kg. At this concentration cadmium may be designated as a dangerous waste. Ecology requires additional proof that this material is not a dangerous waste. (See Comment 7.0 on Section 2.5.2)

Response: The text was revised to address the comment.

10.0 Table 3, Page 12

Deficiency: A comparison of the mean concentration to the dangerous waste criteria is made. This comparison is incorrect. According to WAC 173-303-090 (8) (c) "Any waste containing contaminants which occur at concentrations in the DW range only shall be designated a DW." This is pertinent to any sample and not the mean concentration of all samples.

Recommendations: Correct the comparison.

Response: The text was revised to address the comment.

11. Section 3.0, Page 14

Comment: The final land use for the 300 Area has not been designated as industrial. The material presented is for an Expedited Response Action, therefore citing of WAC 173-340-745 in this manner could lead to the assumption that this regulation will be used in establishing cleanup levels. Reference to this requirement should be deleted.

Response: Text was revised to address comment.

12. Section 3.1, Page 14

Deficiency: This section states that no cleanup level for radionuclides will be established. WAC 173-340-430 (6) references WAC 173-340-400 (4) (a) (i) which states than any interim action must have goals for the cleanup action, that include specific cleanup or performance requirements. Section 7.2.4 of the Hanford Federal Facility Agreement and Consent Order requires that any interim response action be conducted in accordance with 40 CFR Part 300 Subpart E. 40 CFR Part 300.415 (b) (i) requires that the lead agency take any appropriate removal action to minimize or eliminate the release.

Recommendation: Revise this section to propose a level of clean up for all contaminants of concern using available field instruments (e.g., XRF, radiation detection instruments). The use of field instruments may eliminate unnecessary excavation further north in the less impacted areas of the trenches and along the sides of the trench while enhancing cleanup in zones of concern (e.g., the area closest to the weir). This is not implying that ARARs must be established levels, but rather that achievable and detectable field ranges shall be set.

Response: Text was revised to address comment.

13. Section 3.1, Page 14, second paragraph

Deficiency: The material in this paragraph and in Table 6 are not necessary and could be misleading.

Recommendation: Delete the reference to threshold concentrations.

Response: The text was revised to address comment.

14. Section 3.1, Page 14, second paragraph

Comment: Combining section 3.1 and 3.4 would clarify that ARARs are not appropriate for soils in this ERA.

Response: The text was revised to address the comment.

15. Section 3.2, Pages 14-15

Comment: This section states that action specific ARARs will be applied for radioactive contamination levels during the ERA. It would be appropriate to insert a table showing the derived concentration guideline (DCG) levels.

Response: The text was revised to address the comment.

16. Section 3.3, Page 15

Comment: Action level ARARS for chemical constituents in water should be cited or it should be explained why they are not appropriate.

Response: The section was revised to address the comment.

17. Section 3.4, Page 16, second paragraph

Comment: The text states that effluent will be discharged to the process trenches until early 1995. At the present time M-17-06 has not been resolved and the text should not infer this (See comment 5.0 Section 2.3).

Response: Text was revised to address the comment.

18. Section 3.0 General

Comment: The section does not address action levels for airborne contaminants other than radioactive contaminants. Action level ARARs for other chemical constituents as fugitive airborne contaminants should be established .

Response: Text was revised to address the comment.

19. Section 4.1, Pages 16 and 17

Comment: Is should be noted that agency and community acceptance are also evaluation criteria addressed at the end of the selection process when the proposed plan is available for agency and public comment prior to implementation. It may also be worthwhile to note the EPA and Ecology were involved in the evaluation process to some extent.

Response: The text was revised address the comment.

20. Section 4.3.1.1, Page 19

Comment: After discharge to the process trenches has been eliminated the only source of ground water contamination through the sediments would be the natural recharge from precipitation. In order to effectively reduce the contaminant migration the cover material should have a permeability less than that of the subsoils.

Response: The text was revised to address the comment.

21. Section 4.3.1.1, Page 19

Comment: In the second to last sentence in this section, the words "to be differentiated from" are not correctly used. A more appropriate wording may be "in comparison to".

Response: Text was revised to address the comment.

22. Section 4.3.1.2, Page 19

Comment: The text states "The ERA does not intend to remove the contaminants from the immediate area of the trenches; thus land encapsulation is not considered viable for application as an interim action". This statement presents inadequate reasoning for discarding this option.

Response: Text was revised to address the comment.

23. Section 4.3.4, Page 21

Comment: Refer to comment 20 Section 4.3.1.1.

Response: Refer to comment 20 response.

24. Section 5.3, Pages 23 and 24

Comment: Procedures should be implemented to address spillage of excavated material during the excavation, loading, and hauling process, as well as the completion of removal activities.

Response: No text revision required.

25. Section 5.3, Page 23, second paragraph

Comment: Dust control measures should be cited for excavation and loading. It may be necessary to water down the trench sides or the bottom material prior to or during excavation in order to reduce the potential for dust.

Response: Text was revised to address the comment.

26. Section 5.3, Page 24, first paragraph

Comment: This paragraph states that field instruments will be used to verify the level of contamination removal. To verify levels of removal, a desired level must be set. More appropriate wording may be "to assess the level of contaminant removal." (See comment 12 Section 3.1).

Response: The text was revised to address the comment.

27. Section 5.3, Page 24, first paragraph

Comment: See comment 20, Section 4.3.1.1.

Response: See comment 20 response.

28. Section 5.4, Page 25, second paragraph

Comment: It is assumed from the implications in the first paragraph that final stabilization will include placement of cover layers. It would be prudent to place a stabilization layer over all excavated material placed in the north end of the trench prior to activation of that trench for operation, rather than creating only an operation barrier.

Response: The text was revised to address the comment.

29 Section 5.4, Page 25

Comment: The second sentence of this paragraph can lead the reader to believe that clean material will be added the full length of the trench to "prevent erosion and sloughing". Sloughing is not a concern anywhere in the trench except near the outfall apron. Any material added to the trench now is additional waste to deal with in the future. It should be clarified that backfilling of the trench with clean material to the original grade may only take place near the outfall to prevent undermining of the structure and that the remainder of the trench will be graded as necessary.

Response: The text was revised to address the comment.

30. Section 6.1.3, Page 27

Deficiency: The text does not address the fact that if hazardous waste is placed outside the source unit a RCRA TSD permit would be required for temporary storage of this waste.

Recommendation: Note that the interim stabilization in the north process pond alternative does not meet the intent of RCRA or MTCA.

Response: The text was revised to address the comment.

31. Sections 6.2.1.2 and 6.2.1.3, Page 29

Comment: The purpose of sterilant application is not addressed in either the alternative descriptions, nor in the EE/CA.

Response: No text change required.

32. Sections 6.2.1.2 and 6.2.1.3, Pages 28 and 29

Comment: The first sentence in each section states that the ERA "will effectively remove the intermediate source of contaminants.." The ERA will reduce the source, not remove it.

Response: The text was revised to address the comment.

33. Section 6.2.3, Page 31

Deficiency: The text states "Weather conditions or resource restrictions are expected to be the primary sources of delays".. Issues related to resource restrictions should be settled prior to initiation of the ERA.

Recommendation: Resource restrictions should be defined with an appropriate explanation or the reference should be deleted from the text.

Response: The text was revised to address the comment.

34. Appendix E-2

Comment: The first paragraph references figures A and B. These figures should be provided in the Appendix.

Response: The figures were inserted in the document.

35. Appendix D, Pages 9 through 28

Comment: It is not apparent from the figures where the sample locations are. A figures should be provided that depicts the discrete sample number locations.

Response: A revised Figure 4 was inserted in the document.

GENERAL COMMENTS

1. Comment: Reasoning should be given for the 0.6M (2 Ft) average excavation depth (e.g., noting extent of contamination determined in sampling report by Zimmerman and Kossik). Assuming the 0.6M is an average depth, criteria should be given for determining the extent of excavation. This should also be done for the side walls (i.e., what criterion are used for advancing removal activities up and into the side walls of the trenches).

   Response: The text was revised to address the comment.

2. Comment: the text states that the trenches will be monitored with field instruments after excavation is complete, but prior to trench stabilization. Limited sampling should also be done for laboratory analyses, particularly in areas that will continually be impacted by effluent discharge. This sampling would not only provide information as to the effectiveness of the removal activities, using comparative data from Zimmerman and Kossik, but would also provide valuable information that could be used in the RI/FS for the operable unit. During the initial excavation of each trench it would be effective to take out flight of samples from the area near the outfall structure and have quick analyses run for contaminants of concern. The samples could be taken using hand auguring, shelby tubes, or split spoon sampling methods to the maximum depth possible, sampling in 0.5 ft to 1.0 ft intervals. If, after several attempts, sampling endeavors hit refusal a surface sample at the minimum should be taken. This would assure that excavation was done to the extent practicable. If sampling indicated that contamination was still severe enough to merit additional excavation k it could be done before returning the trench to operation.

   Response: The text was revised to address the comment.

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
G. C. Henckel, WHC	P. T. Day, EPA T. L. Nord, Ecology	Incoming: 9102430
(signed by S. H. Wisness, DOE-RL)		(Xref 9153689D)

Subject: TRANSMITTAL OF 316-5 PROCESS TRENCHES EXPEDITED RESPONSE ACTION PROPOSAL FOR PUBLIC COMMENT

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The enclosures are the same as outgoing letter number 9153689D.